Mutation Research, 237 (1990) 293–294
© 1990 Elsevier Science Publisher B.V. 0921-8734/90/$03.50

Contents

Volume 237 (1990)

Review

Molecular analysis of aging processes in fungi
H.D. Osiewacz (F.R.G.) 1

Research Papers

Spontaneous DNA breaks in the rat brain during development and aging
E. Mullaart, M.E.T.I. Boerrigter, G.J. Boer and J. Vijg (The Netherlands) 9

Age-dependent covalent DNA alterations (I-compounds) in rat liver mitochondrial DNA
K.P. Gupta, K.L. Van Golen, E. Randerath and K. Randerath (U.S.A.) 17

Tissue-specific and age-related variations in repetitive sequences of mouse extrachromosomal circular DNAs
J.W. Gaubatz and S.C. Flores (U.S.A.) 29

DNA alterations in prostatic adenocarcinoma and benign prostatic hyperplasia: detection by DNA fingerprint analyses
J.J. White, H. Neuwirth, C.D. Miller and E.L. Schneider (U.S.A.) 37

Clonal variation in gene methylation: c-H-*ras* and α-hCG regions vary independently in human fibroblast lineages
R.J. Shmookler Reis, G.K. Finn, K. Smith and S. Goldstein (U.S.A.) 45

Hypothesis

Are transposons a cause of ageing?
V. Murray (Australia) 59

Research Papers

Activity profiles of enzymes that control the uracil incorporation into DNA during neuronal development
F. Focher, P. Mazzarello, A. Verri, U. Hübscher and S. Spadari (Italy, Switzerland) 65

Ultraviolet light-induced DNA damage in transcribed sequences: no change in repair with age
T. Kunisada, C.D. Miller and E.L. Schneider (U.S.A.) 75

A study of mitotic division fidelity and numerical chromosome changes in ageing Syrian hamster dermal cells
E.M. Parry, A. Hague and J.M. Parry (U.K.) 83

Cytotoxic effects of expression of human superoxide dismutase in bovine adrenocortical cells
K.H. Norris and P.J. Hornsby (U.S.A.) 95

Glycosylases that excise modified DNA pyrimidines in young and senescent human WI-38 fibroblasts
T. Ganguly and N.J. Duker (U.S.A.) 107

Research Papers

The influence of age on the inducibility of rat liver cytochrome P450IA1 (CYPIA1) and P450IA2 (CYPIA2) mRNAs
G.J.M.J. Horbach, J.G. Van Asten and C.F.A. Van Bezooijen (The Netherlands) 117

DNA damage and repair with age in individual human lymphocytes
N.P. Singh, D.B. Danner, R.R. Tice, L. Brant and E.L. Schneider (U.S.A.) 123

Age-related increase in methylation of ribosomal genes and inactivation of chromosome-specific rRNA gene clusters in mouse
K. Swisshelm, C.M. Disteche, J. Thorvaldsen, A. Nelson and D. Salk (U.S.A.) 131

Damage to lymphocytes by X-ray and bleomycin measured with the cytokinesis-block micronucleus technique
Y. Odagiri, J.L. Dempsey and A.A. Morley (Australia) 147

The relationship between DNA repair after alkylation damage and in vitro aging in human T-lymphocytes
J.N. Hartshorn and S.H. Robison (U.S.A.) 153

A methyl viologen-sensitive mutant of the nematode *Caenorhabditis elegans*
N. Ishii, K. Takahashi, S. Tomita, T. Keino, S. Honda, K. Yoshino and K. Suzuki (Japan) 165

Hyperoxia-induced clonogenic killing of HeLa cells associated with respiratory failure and selective inactivation of Krebs cycle enzymes
W.G.E.J. Schoonen, A.H. Wanamarta, J.M. van der Klei-van Moorsel, C. Jakobs and H. Joenje (The Netherlands) 173

Meeting Report

The aging genome: determinant or target? Report of the EURAGE Meeting on 'Genomic Instability and Aging', Nerja (Spain), 6–8 October 1989
P.E. Slagboom (The Netherlands) 183

Review

DNA damage metabolism and aging
E. Mullaart, P.H.M. Lohman, F. Berends and J. Vijg (The Netherlands) 189

Research Papers

Proliferation-dependent regulation of DNA glycosylases in progeroid cells
B.L. Cool and M.A. Sirover (U.S.A.) 211

Acceleration of chromosome aberrations in senescence-accelerated strains of mice
S. Nisitani, M. Hosokawa, M.S. Sasaki, K. Yasuoka, H. Naiki, T. Matsushita and T. Takeda (Japan) 221

Steady-state levels of 7-methylguanine increase in nuclear DNA of postmitotic mouse tissues during aging
B.H. Tan, F.A. Bencsath and J.W. Gaubatz (U.S.A.) 229

Comparison of age-associated changes of c-*myc* gene methylation in liver between man and mouse
T. Ono, S. Yamamoto, A. Kurishita, K. Yamamoto, Y. Yamamoto, Y. Ujeno, K. Sagisaka, Y. Fukui, M. Miyamoto, R. Tawa, S. Hirose and S. Okada (Japan) 239

Age-related increase of mitomycin C-induced micronuclei in lymphocytes from Down's syndrome subjects
M.R. Scarfì, A. Cossarizza, D. Monti, F. Bersani, M. Zannotti, M.B. Lioi and C. Franceschi (Italy) 247

Reduced DNA-repair capacity in cells originating from a progeria patient
S. Wang, C. Nishigori, J. Zhang and H. Takebe (Japan, P.R.C.) 253

Homologous recombination is elevated in some Werner-like syndromes but not during normal in vitro or in vivo senescence of mammalian cells
R.Z. Cheng, S. Murano, B. Kurz and R.J.S. Reis (U.S.A.) 259

Extrachromosomal circular DNAs and genomic sequence plasticity in eukaryotic cells
J.W. Gaubatz (U.S.A.) 271

Contents, Vol. 237 293